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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/801,584

03/17/2004

Georg Mayer

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EXAMINER

OVEISSI, DAVID M

ART UNIT

PAPER NUMBER

2609

MAIL DATE

DELIVERY MODE

09/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/801,584

Applicant(s)

MAYER ET AL.

Examiner

David Oveissi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19, 23-25, 30-31 is/are rejected.
- 7) ☒ Claim(s) 20-22 and 27-28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date May 3 2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Abstract

1. The abstract of the disclosure is objected to because it is 177 words. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 U.S.C § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 7-10, 13-15, 23-24, and 29-31 are rejected under 35 U.S.C § 102 (e) as being anticipated by **Siegel (US 2004/0203799 A1)**.

For claims 1, 10, 14, 24, and 30-31 Siegel teaches a method/network device /means a method of processing a routing information in a packet data network (see abstract, "voice packet" and "routing information"), the method comprising the steps of: extracting the routing information from a received message (see abstract, paragraph 22, and Fig. 11 UNIT 420 and see paragraph 7) at a border (see abstract "router") between a first network and a second network (see Fig.1 routers); adding at least one invalid entry to first-network entries of the routing information, the first-network entries relating to a routing path of the message within the first network (see Fig. 7 "modified Routing Information"); generating an encrypted routing information by encrypting the at least one invalid entry and the first-network entries by using an own token at least for each of the first-network entries (see paragraphs 7, 27 "a variety of encryption mechanism (e.g. hashing, "key pairs"), and paragraph 38 security parameters (ex. Encryption parameters, decryption parameters); replacing (Fig.11 unit 440) the routing information of the received message by the encrypted routing information; and forwarding (Fig. 11 unit 450 "Transmit voice message with

modified routing header to one other members of network”) the received message with the encrypted routing information to the second network.

For claims 2 and 15 Siegel teaches the method according, further comprising the step of: providing the routing information in a routing header of the message (see Fig. 6 unit 126 “routing information”, Fig. 7 “ modified routing information”, and Fig. 11 Unit 420 “extract header routing information from voice message”).

For claim 7 Siegel teaches the method, further comprising the step of: marking the at least one added invalid entry (see paragraph 27 “a variety of encryption mechanisms can be employed to encrypt the packet”).

For claim 8 Siegel teaches the method, further comprising the step of: providing each of the first-network entries comprising at least one of name and address information of a network node through which the received message has been routed (see paragraph 8).

For claims 9, 13, 23, and 29 Siegel teaches the method, further comprising the step of: providing the border between the first and second networks, wherein the border is defined at a gateway device which the message traverses on a connection between the first and second networks (see Fig.1 “border routers 30 and 34 of the network 40”).

Claim Rejections – 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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a. A patent may not be obtained though the invention is not identically disclosed or described as set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 3 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Siegel (US 2004/0203799 A1)** in view of **Partanen et al. (US 6,888,828 B1)**.

For claims 3 and 16 Siegel teaches all the subject matter of a method/device with the exception of the method, further comprising the step of: providing the routing header comprising a **Record-Route header** of a Session Initiation Protocol (**SIP**) message and a

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Service-Route header as specified for the Session Initiation Protocol and **Via header**. On the other hand **Partanen** from the same field of endeavor teaches these limitation. For Session Initiation Protocol (**SIP**) message, (see Fig. 5 “**SIP** message”). For **Record-Route header**, (see column 13 line 9). For **Service-Route header**, (see abstract, Fig. 4 “construct the required Service route”, and Fig.8 unit 40 “Record-Service Route”). And for **Via header**, (see Fig. 5 “service Via” and column 13 lines 3-4 “the Service Via header”). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the Record-Route, Service Route, and Via header of **Partanen** in the secure network-routed voice processing method and device of **Siegel**. The Record route header, Service Route header, and Via header are part of session initiation protocol (SIP). The voice processing of **Siegel** is digitized voice packets that can accommodate various digitized voice protocol such as Voice over IP (VoIP). The SIP and H.323 are two of the VoIP protocol standards, which are governed by the IETF organization. The SIP and its related parameters (Record-Route, Service, and Via headers), which are part of SIP messages can implemented and configured on most routers and gateways, and firewalls. The motivation for doing this is that SIP is becoming a de facto protocol of choice because of its advantages such as addressing and simplicity as opposed to the H.323, which is more complex.

6. **Claims 4-6, 11-12, 17-19, and 25-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Siegel (US 2004/0203799 A1)** in view of **Westman (US 2004/0088419 A1)**.

For claims 4 and 17 Siegel teaches all the subject matter of a method/device with the exception of the method/device, further comprising the step of: processing the routing information using a **topology hiding** method. On the other hand, **Westman** from the same field of endeavor teaches this subject matter limitation (see paragraph 2 “configuration hiding” and paragraph 8 “topology hiding”, paragraph 16 “configuration hiding”, and paragraph 16 “topology hiding principle”). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the teaching of **Westman** about topology hiding in the Voice processing of **Siegel**. The **Siegel** nodes can be VOIP routers, gateways, or Session Border Controllers that can accommodate SIP protocol plus functionality such as access control topology, topology hiding, and DOS prevention and detection). The motivation to network topology-hiding techniques and functions are to protect the network from hackers and malicious users.

For claims 5-6 and 18-19 Siegel teaches all the subject matter of a method/device with the exception of the method, wherein, in the processing step, the topology hiding method is applied in response to a user identity marked with predetermined information and in response to a network identity. On the other hand **Westman** from the same field endeavor teaches this subject matter (see paragraphs 16, 36, 38, and 57). The identification of users and networks are part of authentication process. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the security teachings of **Westman** in the adaptable border device of **Siegel**. The authentication, authorization, and accounting are modular functionality can be implemented in most routers, switches and gateways. The motivation for adding these

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functionalities to the SIP routes is to authenticate both users and networks from spoofing and further enhancing security.

For claims 11 and 25 Siegel teaches all the subject matter of a method/device with the exception of the network device, wherein the network device further comprises one of an **Interrogating Call Session Control Function (I-CSCF)** and a **Topology Hiding Gateway function**. On the other hand **Westman** from the same field endeavor teaches this subject matter limitation (see paragraph 2 “configuration hiding” and paragraph 8 “topology hiding” and paragraph 16 “configuration hiding” and paragraph 70 “**I-CSCF**”). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the security teachings of **Westman** in the adaptable border device of **Siegel**. Security modules of **Westman** can be incorporated in the **Siegel** because of their modularized characteristics. The motivation for adding these functionalities to the SIP router is to authenticate both users and networks from spoofing attacks.

For claims 12 and 26 teaches all the subject matter of a method/device with the exception of the network device, wherein the packet data network further comprises an **IP Multimedia Subsystem**. On the other hand **Westman** from the same field endeavor teaches this subject matter (see paragraphs 34, 83, and 84 “IMS IP Multimedia Subsystem” and Fig.1). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use. Once voice is digitized it can accommodate various types of services and applications such as IP IMS. Since most of IP and VoIP are modularized (object program) various types of application can be added to their

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protocol stacks. The motivation to add IMS functionality is provide QoS security, charging and enables real integrated multimedia services.

Allowable subject Matter

7. **Claims 20-22 and 27-28** are objected to as being dependent upon a rejected base claim, but would be allowable if written in dependent form including all of the limitations of the base claim any intervening claims.

Conclusion

8. Prior art made of record and not relied upon is considered pertinent to applicant's disclosure. **Nuutinen (US 2002/0129236 A1), Melampy (US 2003/0051130 A1), and Schuster (Us 6,857,072 B1).**

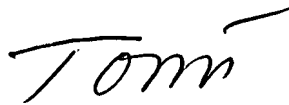
9. Any inquiry concerning this communication or earlier communications from examiner should be directed to David Oveissi whose telephone number is (571) 270-3127. Examiner can normally be reached on Monday to Friday 8:00 AM to 5:00 PM EST.

If attempts to reach examiner by telephone are unsuccessful, examiner's supervisor, Dang Ton can be reached on (571) 272-3171. fax phone number for organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding status of an application may be obtained from Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to Private PAIR system, contact Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

D.O

A handwritten signature in cursive script, appearing to read "Tom", with a long horizontal stroke extending from the top of the "m".

DANG T. TON
SUPERVISORY PATENT EXAMINER